

August 30, 2019

Department of Lands – Sahtu Region
P.O. Box 126
Norman Wells, NT X0E 0V0

Attention: Trevor Bremner

Land Use Permit: S13A-002

Type of Operations: Little Bear N-09 Cut and Cap, Summer / Fall Operations

Dear Mr. Bremner,

Per our verbal communications on August 23, 2019, this is a follow up written field modification proposal for cut and cap operations to take place on Little Bear N-09 during Summer / Fall Operations, 2019.

As the Department of Lands is aware, Husky Oil Operations Ltd. did not complete cut and cap activities on Little Bear N-09 well last winter. As temperatures warmed to unseasonal conditions, Husky was not able to gather enough information to finalize a decision to cut and cap the well in March. A Doull Site Assessment Vent Meter was then attached to the well and has since monitored the well after the winter activities concluded.

The Office of the Regulator of Oil and Gas Operations (OROGO) has since reviewed information pertaining to the monitoring of N-09 and has granted approval to cut and cap the well (see Encl 1 dated August 27, 2019, *Letter of Decision: Cutting and Capping of the Little Bear N-09 Well ACW-2018-002-HUS-N-09-WID2076*).

Husky is now proposing to complete a heli-portable cut and cap operation in the summer / fall months on unfrozen lands as a field modification. Please see below for the proposed summer / fall operations to cut and cap the well. These are described in two potential scenarios based on equipment availability, with Scenario 2 as a backup plan to Scenario 1. General equipment required, and equipment required for each scenario is listed below:

General Equipment required for both Scenarios:

- Bell 212S Helicopter, Netting, Long Line
- 15 – 20 Dura-base interlocking composite mats (4' x 4')
- Mini Skid Steer (tracked, low ground pressure, 3,600 lbs, 1,633 Kgs)

Scenario 1:

- Heli-portable waterjet pump and motor skid with batteries (e.g. Cut and Cap Unit – listed in Project Description submission last year, but converted to a heli-portable unit), 2,600 lbs, 1,179 Kgs
- Casing Jack, 2,205 lbs, 1,000 Kgs
- Tool Box, sand-hopper and fuel cell, 2,800 lbs, 1,270 Kgs
- 1 m3 of clean potable water

1. Sling in material and equipment and set up matting around the well head to minimize vegetative disturbance on site.
2. Remove the well head and sling off site to the All Weather Camp Pad for transport South.
3. Set up the heli-portable cut and cap equipment, the water tank, and required water for the water jet cutting unit, on the matting.
4. Complete the cut, pull out the casing bowl and casing, utilizing small skid steer and 212S helicopter.
5. Cap the casing at approximately 1.5 m below ground level.
6. Fill the hole with bentonite and soils, and reclaim using straw matting and approved seed mix.

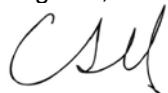
Scenario 2:

- Heli-Portable welding unit, and personnel
 - Mini Excavator (tracked, approx. 3,600 lbs, low ground pressure)
1. Sling in material and set up matting around the well head to accommodate a slope of approximately 2 to 1, at 2 meters deep. Top soil would be segregated from the subsoil to ensure proper replacement once cut and cap is complete.
 2. Remove the well head to sling off site and stage at the camp pad for transport South.
 3. Set up the heli-portable welder on the matting and have personnel cut through and remove the steel casing approximately 1.5 meters below ground level and weld steel cap into place.
 4. Replace the soil in the area of the cut and capped well, and reclaim using straw matting, and approved seed mix.

All equipment utilized for the program is heli-portable and would be stored on matting to mitigate any damages to the land. Cut and cap operations would be completed around the well head area only and the area would be put into a reclamation phase as described. Working in the summer / fall months will allow for the work to be done with pliable soils to minimize any slumping around the well centre.

Please feel free to call if you have any further questions or comments.

Regards,



Chris Salewich B.Sc.
Site Wide Services Manager - NWT
Logistics and Surface Development
Husky Energy
cellular: (403)700-4780
chris.salewich@huskyenergy.com

CC: Sahtu Land and Water Board

Enclosures

Encl 1 OROGO – Little Bear N-09 Cut and Cap Approval
Encl 2 Map – Little Bear N-09 Lease
Encl 3 Area Pictures

ENCLOSURE 1

August 27, 2019, *Letter of Decision: Cutting and Capping of the Little Bear N-09 Well ACW-2018-002-HUS-N-09-WID2076*

Al Pate
VP Explorations and Production
Husky Oil Operation Ltd.
707 – 8th AVENUE SW
CALGARY AB T2P 3G7

August 27, 2019

Dear Al Pate:

**Letter of Decision: Cutting and Capping of the
Little Bear N-09 Well (ACW-2018-002-HUS-N-09-WID2076)**

On August 21, 2019, the Office of the Regulator of Oil and Gas Operations (OROGO) received a request from Husky Oil Operations Ltd. (Husky) to cut and cap the Little Bear N-09 Well (WID 2076). The request was accompanied by supporting information, including well inspection reports and the results of gas migration tests, surface casing vent flow and pressure build up tests conducted on June 27, 2019, July 19, 2019 and August 12, 2019.

Based on the information provided, I approve the cutting and capping of the Little Bear N-09 Well (WID 2076) subject to the following conditions:

1. All operations remain compliant with the approval to alter the condition of a well (ACW-2018-002-HUS-N-09-WID2076) and the *Well Suspension and Abandonment Guidelines and Interpretation Notes (Guidelines)*. As per section 89 of the *Oil and Gas Drilling and Production Regulations*, Husky must submit an updated Well Operations Report within 30 days following completion of the cutting and capping activities; and
2. Gas migration testing must be conducted on the well site between July 15, 2020 and September 30, 2020, during dry conditions. Husky must notify OROGO@gov.nt.ca at least 30 days prior to the commencement of field operations related to the gas migration testing at this well site.

.../2

OROGO's records will continue identify the status of this well as suspended and in compliance with the Downhole Well suspension Requirements (Section 5B) of the Guidelines.

Sincerely,

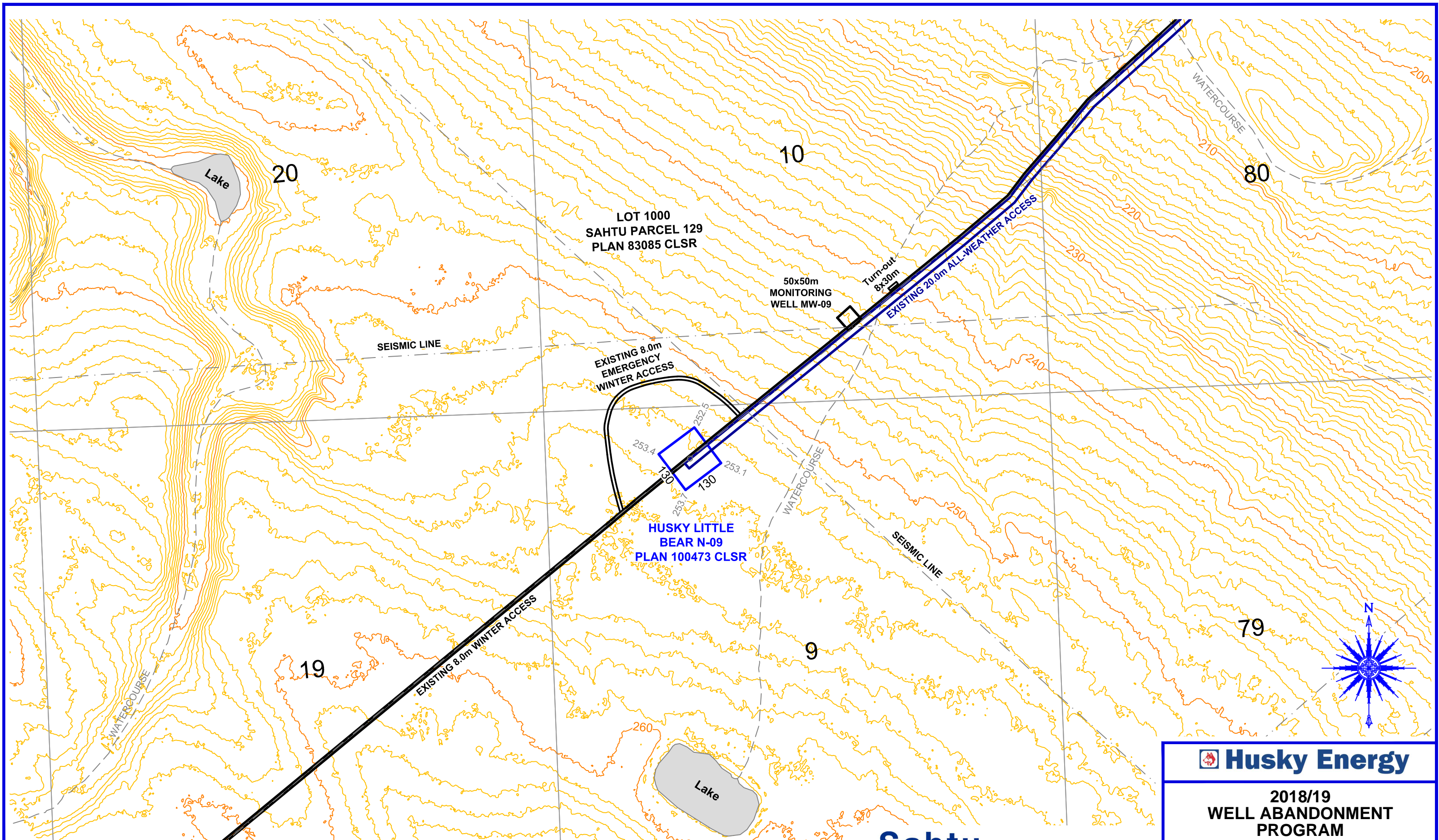


Pauline de Jong
Chief Conservation Officer

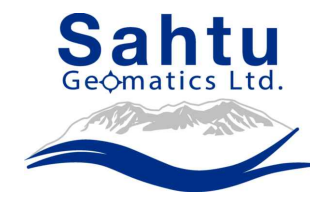
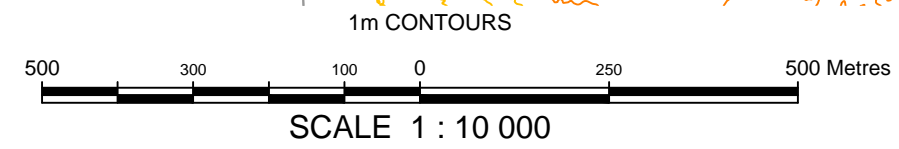
c. Warren Watson, Completions Superintendent, Husky Energy Inc.

ENCLOSURE 2

Map - Little Bear N-09 Lease



REVISION TABLE			
No.	DESCRIPTION	DATE	BY
0	ISSUED FOR REVIEW	2018-08-13	LM



460 - 6940 FISHER ROAD S.E.
 CALGARY, ALBERTA T2H 0W3
 PH (403) 253-8101
 FAX (403) 253-1985

NAD83 ZONE 9



**2018/19
 WELL ABANDONMENT
 PROGRAM
 LITTLE BEAR N-09**
 Sahtu Settlement Area, Tulita District,
 Northwest Territories

DRAWN : LM	SCALE: 1 : 10,000	JOB NO. : 39023
CHECKED: TS	DATE : 2018-08-13	DWG : 39023-Wells

ENCLOSURE 3

Area Pictures

ENCLOSURE 3 - Site Pictures

Site Name	NWT Slater River - Site Wide Services	Regulator	Sahtu Land and Water Board
Project	Abandonment Project	Licence	Multiple
WSLs	Steve Preston, Darwin Semeniuk Ken Shepherd, Carson Nutting Chris Salewich	Site Location	EL 494, Sahtu Settlement Area, NWT



Photograph 1

Site: Little Bear N-09

Photo Location:
Aerial

Direction:
West

Photo Date:
26-Aug-19

Comments:
Aerial overview showing the entire N-09
lease, with monitoring equipment.



Photograph 2

Site: Quarry B

Photo Location:
West Side of the Quarry

Direction:
East

Photo Date:
26-Aug-19

Comments:
Ground overview showing the entire N-09
lease, with monitoring equipment.

Subject: Re: Husky's Proposed Field Modification for Cut and Cap of N-09
Date: Saturday, September 7, 2019 at 2:27:48 PM Mountain Daylight Time
From: Chris Salewich
To: Jonathan Gillingham
CC: Trevor Bremner, Bonnie Bergsma, Ash Varghese

Thanks everyone. We are working with our vendors to ensure the appropriate equipment is available to go with scenario 1.

Regards,
Chris

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From: Jonathan Gillingham <Jonathan_Gillingham@gov.nt.ca>
Sent: Friday, September 6, 2019 4:03:31 PM
To: Chris Salewich <Chris.Salewich@huskyenergy.com>
Cc: Trevor Bremner <Trevor_Bremner@gov.nt.ca>; Bonnie Bergsma (bonnie.bergsma@slwb.com) <bonnie.bergsma@slwb.com>; Ash Varghese (ash.varghese@slwb.com) <ash.varghese@slwb.com>
Subject: FW: Husky's Proposed Field Modification for Cut and Cap of N-09

Good Afternoon Chris,

As per the email below, the Department of Lands, Sahtu Region, also has no objection to the request for modification of Husky's operations (Little Bear N-09 Cut and Cap, Summer / Fall Operations). Please refer to the email below from the Sahtu Land and Water Board for their take on the modification. You can consider this email as an approval to move forward with the modifications requested (Little Bear N-09 Cut and Cap, Summer / Fall Operations). Moreover, scenario 1 is the preference for the Department of Lands, Sahtu Region as well.

Please continue to adhere to all conditions within your Land Use Permits (S13A-002 and S13X-003). If there are any questions or concerns, please contact Trevor or me.

Cheers,

Jon

Thank you | Mársı | Kinanāskomitin | Merci | Hąj' | Quana | Qujannamiik | Quyanainni | Máhsı | Mahsi

Jonathan Gillingham (B Sc ENR)
Resource Management Officer II

Sahtu Region

Department of Lands

Government of the Northwest Territories

2nd floor, Cartrols Building
PO Box 126
31 Mackenzie Drive
Norman Wells, NT X0E 0V0

Phone: 867-587-7205
Cell: 867-587-6690
Fax: 867-587-2928
<https://www.lands.gov.nt.ca/en>

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From: Bonnie Bergsma [mailto:bonnie.bergsma@slwb.com]
Sent: September 6, 2019 3:03 PM
To: Jonathan Gillingham
Cc: Ash Varghese; Trevor Bremner
Subject: Husky's Proposed Field Modification for Cut and Cap of N-09

Hi Jonathan,

According to the Licence Part G, Condition 1, the Licensee may, without written approval from the Board, carry out a modification provided it meets the following requirements:

- a. The Board has received written notification of the proposed modification at least five days prior to the activity; - we received the request on August 30, 2019
- b. The modification is not in contravention of the Licence conditions or the Waters Act or MVRMA; - we have reviewed the Permit S13A-002 and Licence S13L1-005 scope and conditions and the Preliminary Screening that was completed for the project. There is nothing in the proposed modification that is not covered by the Preliminary Screening for this project. There are no conditions that preclude this activity
- c. The Board does not require more than five days to review the modification;
- d. The Board has not rejected the proposed modification.

According to Permit S13A-002 Condition 26(1)(b)6: At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of: (a) the

plan for removal or storage of equipment and materials; and (b) when final cleanup and reclamation of the land used will be completed.

As long as you are satisfied with the proposal, then the SLWB has no objection to this request. We would also prefer scenario 1 to be implemented.

Regards,
Bonnie

Bonnie Bergsma, M.Sc.
Regulatory Specialist
Sahtu Land and Water Board
P.O. Box 1
Fort Good Hope NT X0E 0H0
867-496-2778
Bonnie.bergsma@slwb.com

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